

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011849**Date Inspected:** 08-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TRIAL ASSEMBLY YARD**ULTRASONIC INSPECTION****OBG SEGMENT 6EAST**

This Quality Assurance (QA) Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF Ultrasonic Testing (UT) department for detection of planar transverse indication.

Ultrasonic Testing (UT) performed on repair areas of the side panel splice weld between OBG segment 6BE and 6CE (bike bath side). Weld number was identified as OBE6C-005. Ultrasonic inspection performed utilizing scanning pattern A, B, C and D (Fig 6.7). American Bridge Fluor (ABF) request number was 02072010-3.

No significant indication found

MAGNETIC PARTICLE INSPECTION

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OBG SEGMENT 6EAST

This Quality Assurance (QA) Inspector performed magnetic particle inspection in conjunction with ABF magnetic particle department. Magnetic particle testing performed on repair areas of the side panel splice weld between OBG segment 6BE and 6CE (bike bath side). Weld number was identified as OBE6C-005. American Bridge Fluor (ABF) request number was 02072010-3.

No significant indication found

TRIAL ASSEMBLY YARD

This QA Inspector randomly observed the following work in progress.

OBG SEGMENT 6CW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066261 performing Shielded Metal Arc Welding process for weld SEG031F-001 located on PCMK longitudinal diaphragm top flange to floor beam at PP47 cross beam side. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-TC-U4B-FCM-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066316 performing Shielded Metal Arc Welding process for weld SSD-PP45-185 located on PCMK FL3 at PP45 side panel to bottom panel. ZPMC QC Mr. Wu Zhi Chang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-P-2212-TC-U4B-FCM-1.

OBG SEGMENT 7BW-7CW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066673 performing Flux Cored Arc Welding process for weld OBW7B-006 located on PCMK side panel (counter weight side) splice weld between OBG segment 7BW and 7CW. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T.

This Quality Assurance (QA) Inspector observed ZPMC qualified welders 045280, 045143 performing Flux Cored Arc Welding process for weld OBW7B-008 located on PCMK bottom panel splice weld between OBG segment 7BW and 7CW. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231T.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 050316 performing Flux Cored Arc Welding process for weld OBW7B-006 located on PCMK side panel (counter weight side) splice weld between OBG segment 7BW and 7CW. ZPMC QC Mr. Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T.

OBG SEGMENT 7AE

This Quality Assurance (QA) Inspector observed ABF inspector performing ultrasonic testing (UT) on the weld between edge panel and deck panel (bike path side) of OBG segment 7AE.

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This Quality Assurance (QA) Inspector observed ABF inspector performing ultrasonic testing (UT) on the weld between edge panel and deck panel (cross beam side) of OBG segment 7AE.

OBG SEGMENT 7AE

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straitening on top flange of longitudinal diaphragm in between panel point 40 and 41(counter weight side). Heat straitening report identified as HSR1 (B)-7992.

TRIAL ASSEMBLY YARD

ULTRASONIC INSPECTION

OBG SEGMENT 6EAST

This Quality Assurance (QA) Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF Ultrasonic Testing (UT) department for detection of planar transverse indication.

Ultrasonic Testing (UT) performed on repair areas of the side panel splice weld between OBG segment 6BE and 6CE (cross beam side). Weld number was identified as OBE6C-003. Ultrasonic inspection performed utilizing scanning pattern A, B, C and D (Fig 6.7). American Bridge Fluor (ABF) request number was 02072010-3.

No significant indication found

MAGNETIC PARTICLE INSPECTION

OBG SEGMENT 6EAST

This Quality Assurance (QA) Inspector performed magnetic particle inspection in conjunction with ABF magnetic particle department. Magnetic particle testing performed on repair areas of the side panel splice weld between OBG segment 6BE and 6CE (cross beam side). Weld number was identified as OBE6C-003. American Bridge Fluor (ABF) request number was 02072010-3.

No significant indication found

Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

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Inspected By: Utekar,Shrikant

Quality Assurance Inspector

Reviewed By: Dawson,Paul

QA Reviewer